

App. No. 09/893,170
Amendment Dated: December 3, 2004
Reply to Office Action of September 10, 2004

Changes to the Specification:

Please replace paragraph 4, starting on page 15, of the specification as follows:

At block 1008, the synchronization application 342 receives the server response 354. Once the server response 354 is received, the synchronization application 342 updates the synchronization state table 344 at block 1010. In general, the synchronization application 342 stores the sync key 402 and the client manifest 404 from the client request 324 in the last sync key entry 702 and last manifest entry 708, respectively. The synchronization application 342 stores the watermark 512 from the server response 354 in the watermark entry 704 of the synchronization state table 344. Once the synchronization state table 344 is updated, the synchronization application 342 builds the client response 326 that, in one embodiment, includes the sync key 412 and the server manifest 414. The synchronization recovery process is then complete. Processing ~~continue to return block 1014~~ continues to return block 1012 which returns to block 812 in FIGURE 8 and proceeds as described above.

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Amendments to the Claims:

1 (Currently amended). A computer-implemented method for recovering from a failed synchronization session between a mobile device and a server, comprising:

- a) receiving a client request for a synchronization session;
- b) determining whether a prior synchronization session failed; and
- c) if the prior synchronization session failed,
 - 1) creating a server request based on the client request and on a synchronization state associated with the failed prior synchronization session so that duplicate objects are not created in the server when the mobile device and the server become synchronized;
 - 2) sending the server request to the server for processing;
 - 3) receiving a server response from the server based on the processing of the server request at the server;
 - 4) modifying the synchronization state based on the server response and the client request;
 - 5) creating a client response based on the server response; and
 - 6) sending the client response to the mobile device.

2 (Original). The computer-implemented method of claim 1, wherein the client request includes a sync key that updates to a pre-determined value each time the client request for the synchronization session is successful, the synchronization state includes a last sync key and determining whether the prior synchronization session failed comprises comparing the sync key in the client request with the last sync key.

3 (Original). The computer-implemented method of claim 2, wherein the prior synchronization session is determined to have failed if the sync key in the client request is one less than the last sync key.

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4 (Original). The computer-implemented method of claim 1, wherein the client request includes a manifest comprising changes to a mobile data store after a prior successful synchronization session.

5 (Original). The computer-implemented method of claim 4, wherein the changes include changes from a prior manifest associated with the synchronization session that failed.

6 (Original). The computer-implemented method of claim 1, wherein the server request includes an update manifest, the update manifest comprises one or more objects and an update action associated with each of the one or more objects, the update action being based on the client request and the synchronization state.

7 (Original). The computer-implemented method of claim 6, wherein the client request includes a manifest and at least one of the one or more objects in the update manifest does not have a corresponding object in the manifest of the client request.

8 (Original). The computer-implemented method of claim 6, wherein the update action is based on a current action specified in the client request and a last action specified in the synchronization state.

9 (Original). The computer-implemented method of claim 8, wherein the update action is identical to the current action.

10 (Original). The computer-implemented method of claim 8, wherein the update action is identical to the last action.

11 (Original). The computer-implemented method of claim 8, wherein the update action is different than the current action and the last action.

12(Original). The computer-implemented method of claim 1, wherein the synchronization state includes a last manifest associated with a manifest in the client request for

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the prior synchronization session that lists changes to a mobile data store after a prior successful synchronization session, a watermark identifying a state within a server store at which the server has synchronized the server store, a prior watermark which identifies a prior state of the watermark.

13 (Original). The computer-implemented method of claim 1, further comprising storing the synchronization state to a non-volatile storage media.

14 (Original). A computer-readable medium having computer-executable components with instructions for recovering from a failed synchronization session between a first data store and a second data store, comprising:

a synchronization component configured to detect a failed synchronization session based on a client synchronization request and a synchronization state and to perform a synchronization recovery upon detecting the failed synchronization session, the synchronization recovery comprising:

creating an update manifest based on the synchronization state and the synchronization request, the update manifest includes changes to the first data store that were not provided in a prior synchronization request and excludes changes provided in the synchronization request that were previously updated on the second data store during the failed synchronization session; and

sending the update manifest to a device configured to update the second data store.

15 (Currently amended). The computer-readable medium of claim 14, wherein the synchronization state includes a last client manifest associated with the failed synchronization session, a watermark identifying a position state with the second data store at which the second data store is synchronized.

16 (Original). The computer-readable medium of claim 15, wherein the watermark comprises a collblob.

17 (Original). The computer-readable medium of claim 15, wherein the synchronization component is further configured to store the synchronization state to a non-volatile storage media.

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18 (Currently amended). The computer-readable medium of claim 15, wherein the synchronization component is further configured to store the synchronization state to ~~a non-volatile storage media~~ a directory associated with the synchronization component.

19 (Currently amended). A system for recovering from a failed synchronization session between a first data store and a second data store, comprising:

a first device associated with the first data store;

a second device associated with the second data store; and

a server coupled to a storage medium on which a synchronization state associated with a first synchronization session is stored, the server configured to access the synchronization state upon receiving a subsequent synchronization request and to determine whether the subsequent synchronization request corresponds to the first synchronization session, if the synchronization request corresponds to the first synchronization session, the server is configured to initiate a recovery synchronization session, wherein the server is further configured to exclude changes provided in the first synchronization session that were previously updated.

20 (Original). The system of claim 19, wherein the recovery synchronization session includes creating an update manifest based on the synchronization state and the subsequent synchronization request and sending the update manifest for processing on the second device, the update manifest includes changes to the first data store that were not previously updated on the second data store and excludes changes provided in the subsequent synchronization request that were previously updated on the second data store during the failed synchronization session.

21 (Original). The system of claim 19, wherein the second device comprises the server.

22 (Original). The system of claim 19, wherein the subsequent synchronization request corresponds to the first synchronization session when a sync key in the subsequent synchronization request is one less than a last sync key stored in the synchronization state.